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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,223	11/03/2003	Michiel van Nieuwstadt	81093007	3083

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DEARBORN, MI 48126

EXAMINER

TRAN, BINH Q

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,223

Applicant(s)

VAN NIEUWSTADT ET AL.

Examiner

BINH Q. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This office action is in response to the amendment filed May 09, 2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1, and 9 are rejected under 35 U.S.C. 102 (e) as being anticipated by Pfeifer et al. (Pfeifer) (Patent Number 6,725,647).

Regarding claims 1 and 9, Pfeifer discloses an exhaust gas aftertreatment system for an internal combustion engine (1) exhaust, the system comprising: an Active Lean NO_x catalyst (IV); an oxidation catalyst (III) coupled downstream of said ALNC (IV); and a selective catalytic reduction catalyst (II) coupled downstream of said oxidation catalyst (III) (e.g. See Fig. 3; col. 6, lines 14-67; col. 7, lines 1-25).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfeifer in view of Matros et al. (Matros) (Patent Number 6,314,722).

Regarding claims 2-3, Pfeifer discloses all the claimed limitation as discussed above except a particulate filter coupled downstream of said SCR catalyst in exhaust gas aftertreatment system for a diesel engine.

Pfeifer teaches that it is conventional in the art, to use a particulate filter (38) coupled downstream of said SCR catalyst (18) in exhaust gas aftertreatment system for a diesel engine (See col. 6, lines 21-45; col. 8, lines 8-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to use a particulate filter coupled downstream of said SCR catalyst in exhaust gas aftertreatment system for a diesel engine of Pfeifer, as taught by Matros for the purpose of absorbing the particulate in the exhaust gas, so as to reduce the poisoned materials in the purifying catalyst and to reduce amount of nitrogen oxides in the exhaust gas of the lean-burn engine, and further improve the performance of the engine and the efficiency of the emission device.

Regarding claim 4, Matros further discloses a first reductant injection system (24) adapted to inject hydrocarbon into an exhaust gas stream entering said ALNC (See col. 6, lines 21-45; col. 8, lines 8-65).

Regarding claim 5, Matros further discloses that the a second reductant injection system adapted to inject aqueous urea into an exhaust gas stream entering said 5CR catalyst (See col. 6, lines 8-67; col. 7, lines 1-58).

Allowable Subject Matter

Claim 10 is allowed.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Response to Arguments

Applicant's arguments filed May 09, 2005 have been fully considered but they are not completely persuasive. *Claims 1-5, and 9-10 are pending.*

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

Applicants have argued that Pfeifer et al. does not teach or suggest Applicants's claimed invention. More specifically, Applicants assert that the reference to Pfeifer fails to disclose "*an Active Lean NO_x Catalyst (ALNC) couple upstream of the oxidation catalyst. The ALNC is a device, wherein NO_x is continuously reduced in an oxygen rich environment through extra injection of reductant, such as hydrocarbon*". In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant

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relies (i.e., *"The ALNC is a device, wherein NO_x is continuously reduced in an oxygen rich environment through extra injection of reductant."*) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In addition, the examiner respectfully disagrees, Collier has disclosed that "Catalyst unit IV is formed by a nitrogen oxide storage catalyst, which temporarily stores the majority of the nitrogen oxides present in lean exhaust gas and releases the previously temporarily stored nitrogen oxides in the presence of a rich, exhaust gas composition ". It is well understood in the art that "*nitrogen oxide storage catalyst, which temporarily stores the majority of the nitrogen oxides present in lean exhaust gas and releases the previously temporarily stored nitrogen oxides in the presence of a rich, exhaust gas composition*" is also Active NO_x Catalyst.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT
July 22, 2005



Binh Q. Tran
Patent Examiner
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